SCIENTIFIC EVENTS

DEATHS OF GERMAN MEN OF SCIENCE[1]

AT our request, Professor C. Runge, of Göttingen, has been good enough to send us the following list of leading men of science in Germany who have died since the beginning of the late war. The list is not, however, complete, and may be supplemented later. Short obituary notices of some of the men will be found in the *Geschäftliche Mitteilungen der Göttinger Gesellschaft der Wissenschaften,* 1918–19–20 (Weidmannsche Buchhandlung, Berlin S.W. 68, Zimmerstr. 94):—W. Lexis, mathematician and statistician, August, 1914; W. Hittorf, physicist, November, 1914; A. von Auwers, astronomer, January, 1915; A. von Könen, geologist, May, 1915; E. Riecke, physicist, June, 1915; P. Ehrlich, physician, August, 1915; H. Solms-Laubach, botanist, November, 1915; R. Dedekind, mathematician, February, 1916; E. Mach, philosopher and physicist, February, 1916; K. Schwarzschild, astronomer, May, 1916; R. Helmert, mathematician and physicist, June, 1917; A. von Baeyer, chemist, August, 1917; G. Frobenius, mathematician, August, 1917; A. von Froriep, anatomist, October, 1917; H. Vöchting, botanist, November, 1917; C. Rabl, anatomist, December, 1917; G. Cantor, mathematician, January, 1918; L. Edinger, physician, January, 1918; E. Hering, physiologist, January, 1918; F. Merkel, anatomist, May, 1919; S. Schwendener, botanist, June, 1919; E. Fischer, chemist, July, 1919; H. Bruns, astronomer, 1919; Th. Reye, mathematician, July, 1919; W. Voigt, physicist, December, 1919; P. Stäckel, mathematician, December, 1919; W. Pfeffer, botanist, January, 1920; O. Bütschli, zoologist, February, 1920; and W. Förster, astronomer, 1920. J. Elster, physicist, and Joh. Thomae, mathematician, have died recently. In addition to the above, several other German men of science were referred to in the obituary notice of Professor von Waldeyer in *Nature* of May 19, and news has also reached us of the following deaths not previously recorded in these columns:—Professor G. A. Schwalbe, Strassburg, on April 23, 1916, age seventy-one years; and Professor Karl von Bardeleben, editor of the *Anatomischer Anzeiger,* on December 19, 1918, age sixty-nine years.

[1] From *Nature.*

PROGRESS IN THE WORK OF MAPPING THE UNITED STATES

THE United States Geological Survey, Department of the Interior, has published about 3,000 engraved topographic maps, which represent nearly 43 per cent. of the area of the United States. These maps are the results of surveys made during a period of 34 years, and the results are fairly good in quantity and quality for a Government bureau which can go only as fast as appropriations will permit.

A few geologic maps were published by the Survey prior to 1886, some of them in atlases accompanying reports on regions in the West, and a few were published separately as photolithographs; but the 1-degree sheets of northwest New Mexico and northeast Arizona, known as Wingate and Mount Taylor, N. Mex., and Fort Defiance, Tusayan, Marsh Pass, and Canyon de Chelly, Ariz., published in 1886, were the first topographic maps printed by the Geological Survey from engraved plates.

Eight States—Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, West Virginia, and Ohio—have been completely mapped, and the work of mapping the State of New York is more than 90 per cent. completed. Several States are actively cooperating with the Survey in this work and in 1920 contributed to it a total of nearly $200,000.

The Bulletin of the Survey containing this information continues:

> With nearly 60 per cent. of the area of the country entirely unmapped and much that has been mapped in need of resurveys, and with the largest mapping organization in the country surveying only about 40 per cent. of the area in 40 years, the logical demand is for more speed. If these maps are to serve their full purpose in promoting national development the whole country must be mapped within this generation, or, even

better, within the next decade. Practical engineers realize that every dollar of Federal and State funds appropriated for these surveys, if spent in the next twenty years, will save many dollars that otherwise must be spent by corporations and individuals in fragmentary surveys made for special purposes, and the worst feature of such an uneconomic procedure would be that it would provide no maps for the use of the general public.

THE TONGASS NATIONAL FOREST

One million cords of pulpwood on the Tongass National Forest, Alaska, has been sold by the Forest Service of the United States Department of Agriculture to the Alaskan-American Paper Corporation. The timber is from the east shore of the Behm Canal, Revillagigedo Island, about 32 miles from Ketchikan, the largest city in the Territory. The contract price of the timber was 60 cents per 100 cubic feet for spruce and cedar, and 30 cents per 100 cubic feet for all other species. The sale area covers 45,000 acres, and extends for 55 miles along the coast. Twenty per cent. of the forest is spruce, 66 per cent. hemlock, and 14 per cent. Alaska and western red cedar.

A conditional award has been made by the Forest Service to the company, pending approval by the Federal Power Commission of their application for a hydro-electric power license. The timber sale contract covers an initial period of 32 years, or until 1953. The price of the stumpage will be redetermined and fixed by the Federal Government in 1928, and every five years thereafter. Cutting must begin by October 1, 1923, thus allowing two years for organization and construction of improvements. The contract also requires the establishment of a pulp mill of not less than 25 tons capacity by October 1, 1926. A yearly cut of from 2,500,000 to 3,000,000 cubic feet is contemplated.

The award of this sale is in line with the general policy of the Forest Service for making available the timber resources of Alaska as a means of increasing the supply of pulpwood for the United States. The national forests of the Territory probably contain 100,000,000 cords of timber suitable for the manufacture of newsprint and other grades of paper. Under scientific management, experts say these forests can be made to produce 2,000,000 cords of pulpwood annually for all time, or enough to manufacture one third of the pulp products now consumed in this country.

The Alaska forests also contain the second chief essential of the pulp and paper manufacturing industry, namely, water power. No accurate survey of the power resources has yet been made, but known projects have a possible development of over 100,000 horsepower, and it is believed that a complete exploration of the national forests in southern Alaska will show not less than 250,000 potential horsepower that can be developed from water.

Forest Service cruisers are now working in Alaska collecting data for further use and development of the forests. One block of timber containing 335,000,000 cubic feet—enough to keep a 100-ton pulp mill running—has been advertised and is now ready for sale.

THE ROOSEVELT WILD LIFE MEMORIAL

The wild life memorial established by New York State to Theodore Roosevelt, The Roosevelt Wild Life Forest Experiment Station at Syracuse, is this summer conducting field investigations in New York State in the newly established seven thousand acre Allegheny State Park, which lies south of Buffalo on the Allegheny River. Here Mr. Aretas A. Saunders is investigating the birds, and Professor T. L. Hankinson the fishes. Through friends of the station funds have been provided to investigate the beaver in the Adirondacks, where numerous complaints of the injuries have necessitated a study of their present status. This investigation is being made by Dr. Charles E. Johnson. Through the cooperation of President Howard H. Hays, of the Yellowstone Park Camps Company, and with the approval and cooperation of Director Mather, of the Park Service, and of Superintendent Albright, of the Yellowstone National Park, a field party has been at work in the Yellowstone studying wild life problems, with headquarters at Camp Roosevelt, in the north-